

CLAIMS

What Is Claimed Is

1. Glass composition of the silica-soda-lime type, intended for the manufacture of substrates or sheets, characterized in that the glass composition has a ϕ coefficient of between 0.50 and 0.85 N/(mm².°C) and a working point of less than 1200°C.

2. Glass composition according to Claim 1, characterized in that it has a softening point of greater than 750°C.

3. Glass composition according to either of Claims 1 and 2, characterized in that the working point is less than 1190°C.

4. Glass composition according to one of Claims 1 to 3, characterized in that the thermal expansion coefficient α_{20-300} is between 60 and 88×10^{-7} °C⁻¹.

5. Glass composition of the silica-soda-lime type, intended for the manufacture of substrates or sheets according to one of the preceding claims, characterized in that it satisfies the relationship:

$$\phi^2 \cdot c/a < 2 \text{ MPa}^2/\text{°C}^2.$$

6. Glass composition according to one of the preceding claims, characterized in that it satisfies the relationship:

$$0.70 \text{ MPa}^2/\text{°C}^2 < \phi^2 \cdot c/a.$$

7. Glass composition according to one of Claims 1 to 6, characterized in that it has a strain point of greater than 570°C and preferably greater than 600°C.

8. Glass composition according to one of the preceding claims, characterized in that it contains the constituents below in the following proportions by weight:

	SiO ₂	55 - 75%
	Al ₂ O ₃	0 - 7%
35	ZrO ₂	0 - 8%
	Na ₂ O	6 - 10%
	K ₂ O	0 - 8%
	CaO	8 - 12%.

9. Glass composition according to Claim 8, **characterized in that** it contains the constituents below in the following proportions by weight:

5	SiO ₂	69.60%
	Al ₂ O ₃	0.90%
	ZrO ₂	2.60%
	Na ₂ O	7.10%
	K ₂ O	2.90%
10	CaO	10.50%
	MgO	2.00%
	SrO	3.90%
	Fe ₂ O ₃	< 0.15%
	Other oxides	< 0.50%.

10. Composition according to Claim 8, **characterized**
15 **in that** it contains the constituents below in the following proportions by weight:

20	SiO ₂	74.40%
	Al ₂ O ₃	0.95%
	Na ₂ O	9.05%
	K ₂ O	0.45%
	CaO	9.10%
	MgO	5.65%
	Fe ₂ O ₃	0.10%
	Other oxides	0.30%.

25 11. Glass composition according to one of Claims 1 to 7, **characterized in that** it contains the constituents below in the following proportions by weight:

30	SiO ₂	55 - 75%
	Al ₂ O ₃	0 - 7%
	ZrO ₂	0 - 8%
	Na ₂ O	2 - 8%
	K ₂ O	2 - 8%
	CaO	4 - 11%
35	MgO	0 - 4%.

12. Glass composition intended for the manufacture of a thermally stable substrate or sheet according to Claims 1 to 4, **characterized in that** it has a ϕ coefficient of less than 0.84, **in that** its strain point

is greater than 507°C **and in that** its electrical resistivity is such that $\log \rho_{(250^\circ\text{C})}$ is greater than 6.6.

13. Glass composition according to Claim 12, **characterized in that** the φ coefficient is less than 5 0.84 and preferably greater than 0.75.

14. Glass composition according to Claim 12 or 13, **characterized in that** its strain point is between 530 and 590°C and preferably between 550 and 580°C.

15. Glass composition according to one of Claims 12 10 to 14, **characterized in that** its electrical resistivity is such that $\log \rho_{(250^\circ\text{C})}$ is greater than 8.

16. Composition according to one of Claims 12 to 15, **characterized in that** it contains the constituents below in the following proportions by weight:

15	SiO ₂	55 - 75%
	Al ₂ O ₃	0 - 5%
	ZrO ₂	3 - 8%
	Na ₂ O	4.5 - 8%
	K ₂ O	3.5 - 7.5%
20	CaO	7 - 11%.

17. Use of the glass compositions as defined by any one of the preceding claims for the manufacture of monolithic glazing panels resistant to fire according to the G fire resistance classes.

25 18. Use of the glass compositions as defined by any one of Claims 1 to 16 for the manufacture of substrates for emissive screens of the plasma-screen, electroluminescent-screen or cold-cathode-screen type, 30 in particular using a sheet of glass cut from a ribbon of glass obtained by floating the glass on a bath of molten metal.

ADD
X2
X3
AP